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TRANSFOCUS 2021

**A Strategic Transportation Plan
for the
Niagara-Lake Erie Area**



April 1995



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TRANSFOCUS 2021



A Strategic Transportation Plan
for the
Niagara-Lake Erie Area

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STUDY HIGHLIGHTS

- *TransFocus 2021 provides the broad strategic planning foundation for future transportation projects to the year 2021, but does not replace the requirements of the Environmental Assessment Act.*
- *TransFocus 2021 balances five important, and sometimes competing objectives, namely; economic development, environmental protection and sustainability, social equity, user needs and safety, and responsible fiscal management.*
- *Over 1,500 agencies and individuals have been involved in the study's consultation.*
- *The study encompasses the Regional Municipalities of Hamilton-Wentworth, Haldimand-Norfolk and Niagara, plus the County of Brant. This area, which is home to about one million people today, is forecast to grow to 1.22 million people by the year 2021.*
- *As a strategic bridge between the Greater Toronto Area and the United States, the Niagara-Lake Erie area is more affected by growth in surrounding regions than by its own growth.*
- *The area accounts for about 15% of Ontario's agricultural revenue. Manufacturing accounts for 28% of the area's labour force. Tourism is also important: 12 million people per year visit the City of Niagara Falls alone. In terms of international trade, over \$50 billion of goods cross the Niagara gateway annually.*
- *Many of the transportation improvements recommended are designed to support the economic development of the Niagara-Lake Erie area today and in the future. For example, recommendations include widening the QEW, shifting longer distance truck movements from highways to rail and constructing a new Highway 6 connecting Highway 403 with the Hamilton Civic Airport.*
- *Other recommendations are in direct response to environmental objectives, and emphasize improved inter-city public transportation, fully integrated municipal transit systems, intermodal transportation services especially between road and rail, and the development of bicycle and pedestrian networks.*
- *Social equity is addressed through recommendations that stress transportation service accessibility and convenience for all users, including people with disabilities.*
- *A number of specific recommendations deal with highway improvements to meet public concerns about user needs and safety. For example; recommendations include the realignment of Highway 5 north of Waterdown and the completion of Highway 403 between Brantford and Ancaster.*
- *The emphasis throughout the study is to use existing transportation facilities and services more effectively, recognizing the responsible fiscal management objective.*

1.0 WHAT IS TRANSFOCUS 2021?

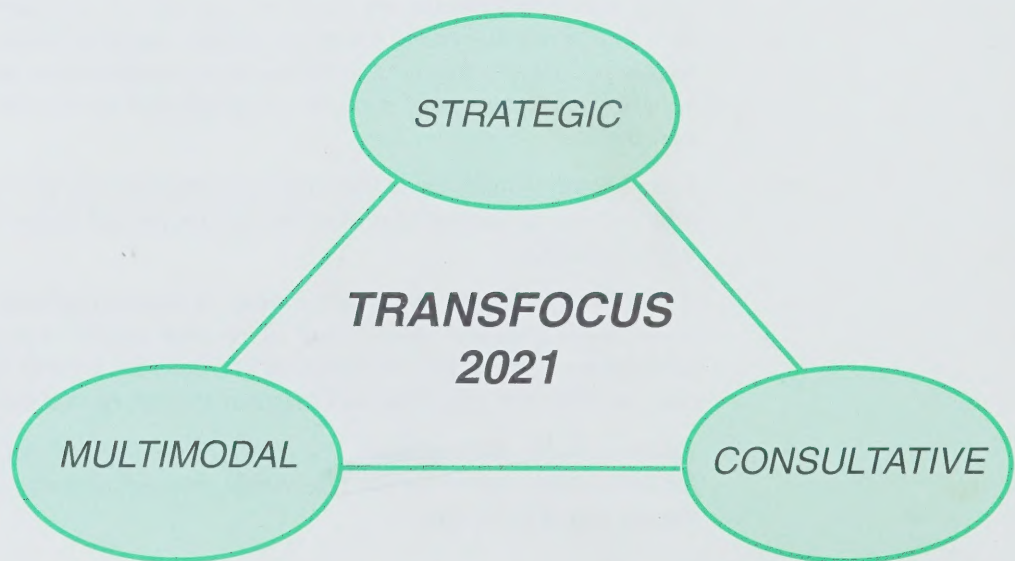
*Address future
movement of
people and
goods*

Transportation is part of the basic fabric of all communities and regions in the province. It directly affects the standard of living and economic vitality enjoyed by people and businesses throughout Ontario. At the same time, the province's transportation system is coming under increasing pressure to expand, in some cases with a direct impact on quality of life. In response, the Ministry of Transportation has begun a series of strategic transportation planning studies called **TransFocus 2021** to address the future movement of people and goods across the province. The primary goal of this study is to develop future transportation systems that will meet the province's objectives of economic development, environmental protection and social equity, while addressing the needs of the traveling public.

Throughout North America, the planning and management of today's transportation systems involve many diverse groups, including transportation experts, economists, environmentalists, planners and elected officials. Transportation planning can no longer focus only on technical issues such as roadway capacity or physical condition. Other issues such as how cities are designed, why people favour the private automobile, what can be done to lessen this dependence and how we can afford to pay for future transportation systems are also important considerations. These new demands on transportation extend well beyond simple questions of mobility.

*The "Big
Picture"*

All of this has led to a TransFocus 2021 planning process that is; i) strategic in its approach to "big picture" planning, ii) multimodal by including all types of transportation systems ranging from roads, railways and airports through to public transportation, water transportation, cycling and walking, and iii) consultative in its emphasis on meaningful public participation.



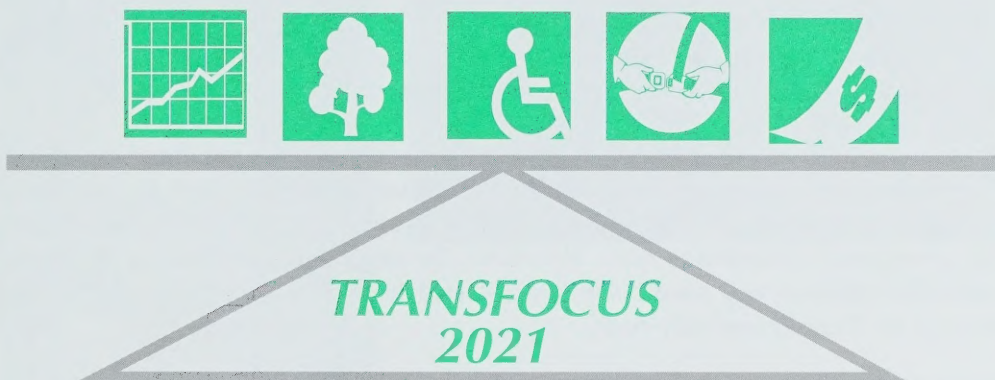
NEW DEMANDS REQUIRE A STRATEGIC APPROACH

TransFocus 2021 uses a strategic planning approach by balancing the roles and re-sponsibilities of transportation in:

- promoting economic development for improved quality of life;
- protecting sensitive environmental and agricultural lands;
- ensuring social equity by promoting access and mobility for all persons;
- ensuring a safe, efficient and reliable system that meets user needs, and;
- providing a cost-effective transportation system.

The challenge for TransFocus 2021 is to develop a transportation system that can achieve a reasonable and effective balance among these important and sometimes competing objectives.

Balance the Objectives



TRANSPORTATION PLANNING MUST INCLUDE ALL MODES

During the 1950's and 60's, new transportation infrastructure needed to be built to serve rapid growth in Ontario's population, economy and resulting motor vehicle use. Today, the emphasis is on making the most of the existing infrastructure in order to ensure that these transportation systems continue to meet user needs. At the same time, there is an equally important need to develop effective alternative transportation services since continued expansion of only the roadway network can no longer be supported for social, environmental and financial reasons.

The TransFocus 2021 study assesses all transportation modes -pedestrian, bicycle, air, water, rail, public transit and road on a large-scale regional level. Integrating these various modes is the key to meeting future transportation demands.

Assess all Modes

OPPORTUNITIES FOR PUBLIC PARTICIPATION MUST BE PROVIDED

A unique feature of TransFocus 2021 is the public consultation process. Successful long range transportation planning stems from the ideas, needs and concerns of the people in a study area. Because TransFocus 2021 is intended to produce integrated, multi-disciplinary plans, the general public, local interest groups and appropriate government agencies must all be given an opportunity to participate.

Various Opportunities to Participate

WHAT IS TRANSFOCUS 2021?

WHAT ARE THE BENEFITS OF THE TRANSFOCUS STUDIES?

Focus the spending of limited tax dollars by all governments.

Fiscal Realities and Funding Opportunities

All levels of government need to target their capital spending at projects which have the greatest effect in a given area. TransFocus 2021's strategic transportation plans provide a capital spending framework that is both sensitive to community needs and recognizes today's fiscal realities. The Ministry of Transportation also feels that if an area's transportation needs are considered in strategic terms, there is a greater likelihood that adequate government funding will be made available to address those needs. Piecemeal project-by-project planning does not have the impact of a more strategic approach to transportation planning.

Streamline the environmental assessment processes.

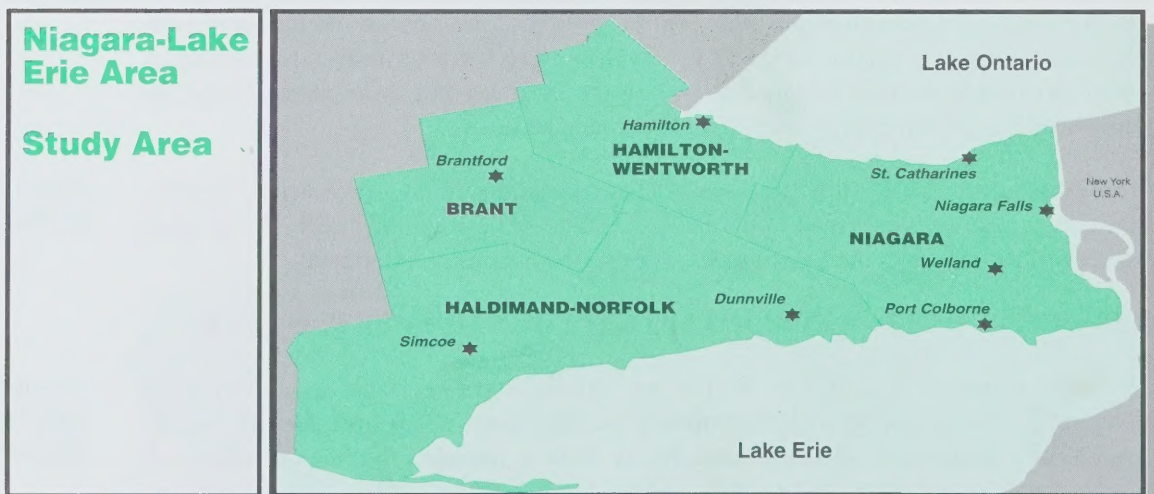
Establish Need and Justification

The TransFocus 2021 process is designed to set the framework for future environmental assessments of transportation projects. As such, the study provides the broad planning foundation for future project-specific approvals.

TransFocus 2021 is not intended to replace or circumvent the requirements of the Environmental Assessment Act. Specific transportation projects, such as new roads or major transit improvements, will still be submitted for review under the Environmental Assessment Act. However, the need and justification for these individual projects will have been demonstrated from a broad system perspective through the TransFocus 2021 study.

WHY THE NIAGARA-LAKE ERIE AREA?

The area for this TransFocus study includes the Regional Municipalities of Hamilton-Wentworth, Haldimand-Norfolk and Niagara, plus the County of Brant.

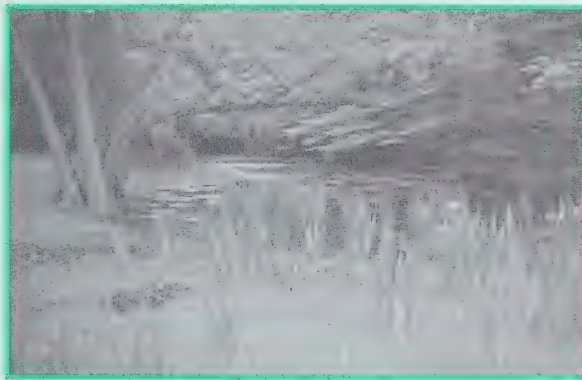


This area was chosen for the first TransFocus 2021 study specifically because of its important transportation, economic, environmental and social assets. As the peninsula between Lake Erie and Lake Ontario, the area forms an important bridge connecting the Greater Toronto Area and the northeastern United States. The area also boasts a number of significant natural features such as the Niagara Escarpment and Long Point. In addition, much of the farmland in the area is unique in terms of both the climate and soils.

*Importance
of the
Land Bridge*



and Watercourses



The Wetlands

The last transportation review of this area was conducted in the 1970's. Since then, a number of environmental, social and economic changes have occurred that affect transportation planning decisions. This is especially true with the economic changes occurring in the Niagara-Lake Erie area, and the impacts they are having on the transportation system. For example, proximity to the United States border, changing regulatory conditions in the transportation industry and the move towards “just-in-time” manufacturing techniques have all combined to place increasing pressure on the Niagara-Lake Erie transportation system. At the same time, provincial and municipal transportation improvements need to be coordinated in a manner that supports tourism, economic development and the mobility needs of the area's population.

*The Increasing
Pressures on the
Transportation
System*

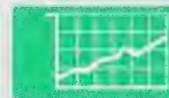
2.0 THE STUDY OBJECTIVES

WHAT IS STRATEGIC TRANSPORTATION PLANNING?

TransFocus 2021 balances five important, and sometimes competing objectives, namely; economic development, environmental protection and sustainability, social equity, user needs and safety, and responsible fiscal management.

1

ECONOMIC DEVELOPMENT



Promote economic development in the study area by building on and supporting its principal economic sectors, namely manufacturing, agriculture, tourism and service industries.

Transportation plays a key role in economic competitiveness and regional development. Many transportation decisions are market-driven in response to community or regional development objectives. For example, manufacturing businesses require reliable transportation systems in order to effectively link them with their suppliers and customers.

Relationship between successful economic development and reliable transportation systems



Auto Manufacturing

International trade is a major economic generator in cross-border gateway centres such as Niagara Falls or Fort Erie. Four international roadways and three railway crossings within this study area provide access between Canada and the United States.

Tourism is also a key industry in the area. Major tourist attractions include Niagara Falls, Marineland, the Royal Botanical Gardens, the Bell Homestead, Brock's Monument, the Shaw Festival and the Bruce Trail. Niagara Falls alone draws close to 12 million visitors per year.



Niagara Falls

2

ENVIRONMENTAL PROTECTION & SUSTAINABILITY



Protect the area's sensitive environmental and agricultural lands, as well as its many important social and cultural values.

Transportation planning must be conducted in a way that is sensitive to the natural, social and cultural environment. The natural environment includes many areas and landforms ranging from the Niagara Escarpment through to selected woodlots and wetlands, as well as the agricultural resources needed to sustain the area's population and economy. The Niagara Escarpment and the Long Point area are both internationally significant ecologies, and are designated as "World Biospherical Reserves".

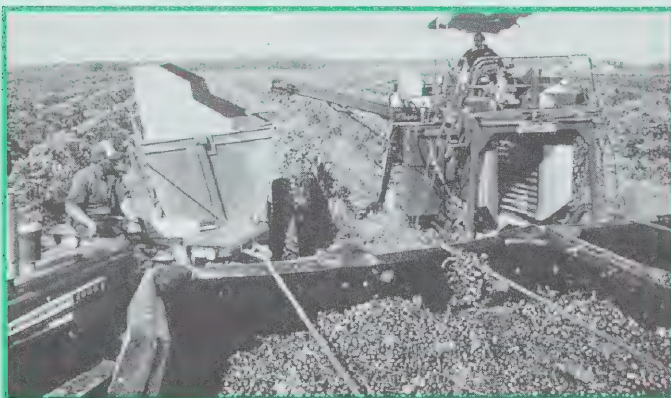
The Natural Environment and Agricultural Resources



The Environmentally Significant Long Point Area

The study area also includes over 40 conservation areas, four provincial parks and one national park. In terms of agriculture, the area offers some of Ontario's most unique and valuable farmland. Some areas, such as the tender fruit farming and vineyards are of national importance and are very sensitive to changes in their natural environment and in the transportation network. Others, such as the tobacco crops, have faced substantial changes over the past several years with more changes expected in the future.

Tender Fruit Farming and Vineyards



Grape Harvesting

*Achieve a
Balance with
Environmental
Values*

The social environment embraces “quality of life” issues such as community cohesiveness or preservation of homes and businesses. The cultural environment includes historical and archaeological legacies, as well as aboriginal lands and land claims within the study area. The TransFocus approach to sustainability is to achieve a balance between transportation and these essential environmental values.

3

SOCIAL EQUITY



Enhance social equity by improving access and mobility for all persons, regardless of their physical ability.

Transportation has to be looked at from more than an economic or environmental perspective. It is an essential aspect of life and everyone, including people with disabilities, seniors with special needs and low income earners, need to have access to their community and beyond. As the population of the Niagara-Lake Erie area becomes more diverse, and more people are unable or choose not to use a car, more transportation options are needed.

The province is committed to achieving a fully accessible public transportation system in an effective and fiscally-responsible manner. Accordingly, TransFocus 2021 incorporates this objective for the Niagara-Lake Erie area.

*Ensure Access
for Everyone*



Accessible Transit

4

USER NEEDS AND SAFETY



Ensure a safe, efficient and reliable transportation system that meets the needs of the users.

Public safety is the key component of all government policy and regulatory programs dealing with transportation. As such, the safe movement of the traveling public is an underlying principle of the TransFocus plan. All the initiatives

*Safety is of
Paramount
Importance*

undertaken by the Ministry of Transportation, ranging from the design of a bicycle system through to widening the QEW, are done with safety as the primary concern.

In addition to being safe, the transportation system must be able to meet the current and expected travel demands of its users. Providing an efficient and reliable transportation system is an important goal of the ministry and this TransFocus study.

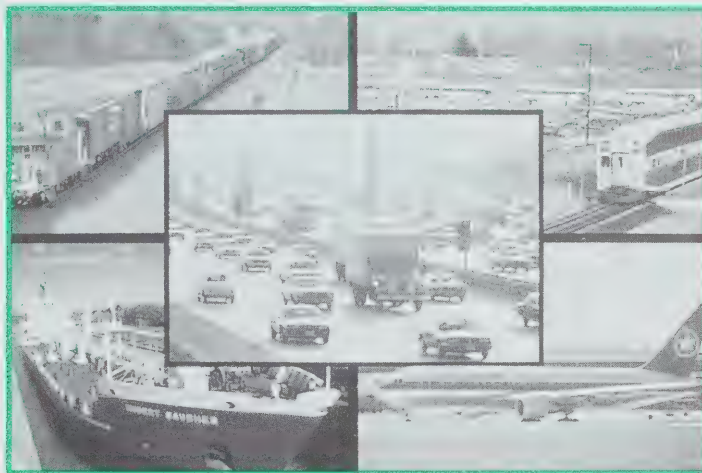
5

RESPONSIBLE FISCAL MANAGEMENT

Provide a cost-effective transportation system.

Public funds used to build and manage today's transportation systems have become increasingly limited. The challenge in the future will be to manage the available transportation dollars more effectively by making greater use of our existing facilities. This objective can be achieved through several methods including better integration of transportation services and enhanced public/private partnerships in service delivery.

*Spend More
Effectively and
Maximize
Existing
Facilities*

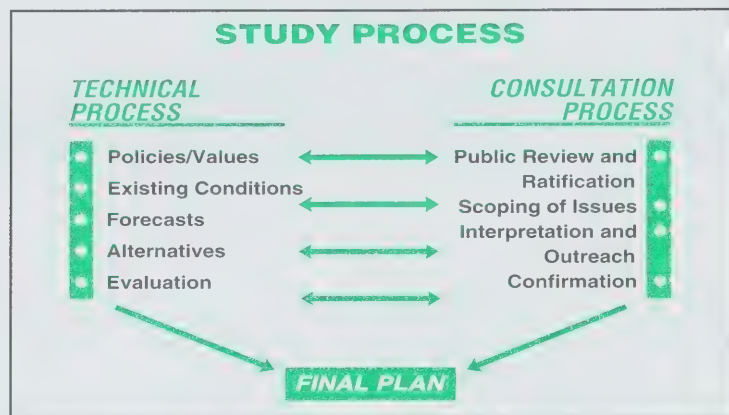


Integrated Transportation

3.0 THE STUDY APPROACH

This TransFocus study differs from previous transportation planning studies in both its broad policy focus and its consultative approach. The study is also unique because of the inter-relationship among technical, consultative and policy aspects. The technical and consultative relationship is shown below.

The Two Study Processes Integrated Into One Final Plan



TransFocus 2021 Study Process

A New Dimension in Transportation Planning

This new, more comprehensive approach to transportation planning is emerging throughout North America. In the United States for example, the Clean Air Act Amendment of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) have given a new dimension to transportation by considering environmental, economic, social and public consultation issues. In Ontario, TransFocus 2021 is recognized as ground breaking in terms of the extent of issues being examined, as well as the heightened level of public consultation.

THE STUDY'S BROAD POLICY APPROACH

As mentioned earlier, TransFocus 2021 examines all transportation modes - pedestrian, bicycle, water, air, rail, road and public transportation. This approach recognizes the needs of both passenger and goods movement, and it focuses on the integration of various types of transportation in order to provide improved quality of service.

Furthermore, in TransFocus 2021, the entire subject of transportation is broadened significantly by considering its sensitive relationship with land use planning, socio-economic development and environmental protection.

Consider all Relevant Provincial Policies

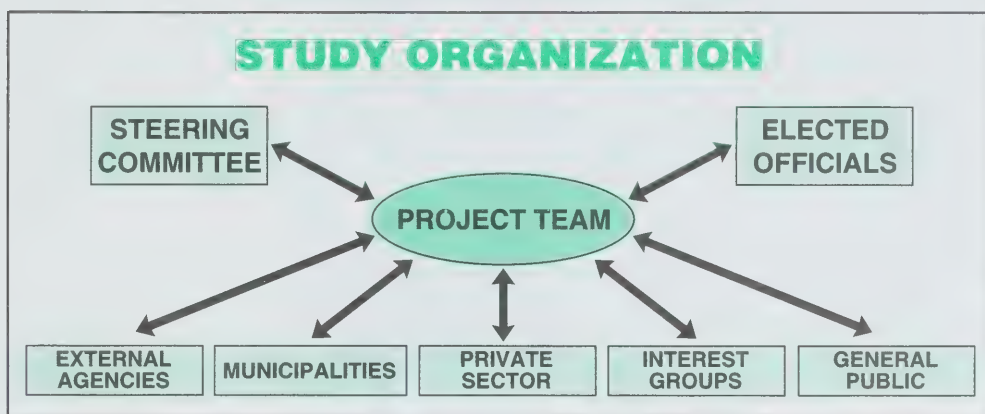
This broad, policy approach is exemplified in part by the many provincial acts, statutes and guidelines considered in the study. Policies on wetlands, preservation of significant agricultural lands and growth and settlement guidelines were all considered in shaping and evaluating the future transportation solutions for Niagara-Lake Erie.

THE FOCUS ON CONSULTATION

TransFocus 2021 placed great emphasis on involving the public, soliciting input and providing information to interested individuals and groups. The net result has been the involvement of over 1,500 agencies and individuals who are interested in the future of transportation and related issues within the Niagara-Lake Erie area.

*Individuals
and Groups*

Full communication with communities and stakeholders throughout the study process was a key to the success of this transportation planning process. Such extensive consultation, within an extremely large and populated study area, allowed the interested public to participate directly in the study through a variety of organized opportunities. By doing so, participants were given the chance to shape the future transportation system in their own area.



*The Role of
Groups and
Individuals*

TransFocus 2021 Study Organization

4.0 THE STUDY AREA TODAY

As mentioned earlier, this TransFocus 2021 study examined the Niagara-Lake Erie area consisting of the Regional Municipalities of Hamilton-Wentworth, Haldimand-Norfolk and Niagara and the County of Brant. This area covers over 7,300 square kilometres. Because of its unique position between the Greater Toronto Area and a major United States gateway, the area offers many transportation challenges.

POPULATION

*90% of
Population in
Urban Areas*

The Niagara-Lake Erie area is a key region of Ontario. Although it accounts for less than one percent of Ontario's total land area, the 1991 population was approximately one million, which means that the area is home to roughly one tenth of all Ontarians. Of equal interest is the fact that 90 percent of the area's population is concentrated in urban communities; the major centres of Hamilton, St. Catharines, Niagara Falls and Brantford account for 60 percent of this population.

Population in the Niagara-Lake Erie area grew relatively slowly during the latter 1970's and early 1980's - less than 3,000 persons per year. This slow growth reflected weak population growth in the province. In the latter 1980's, the area witnessed rapid job creation and a strong growth in population - roughly 13,000 persons per year. This trend was influenced largely by nearby growth in the Greater Toronto Area.

REGIONAL DEVELOPMENT PATTERNS

The general development pattern within the study area has been shaped primarily by three factors; early waterways and railways, roadway development and the influence of growth in the Greater Toronto Area. Railways and ports played a role in the early development patterns in the Hamilton area and along the south shore of Lake Ontario. The cities of St. Catharines, Thorold, Welland and Port Colborne were greatly influenced by the development of the Welland Canal.

*Roadways
Follow
Development*

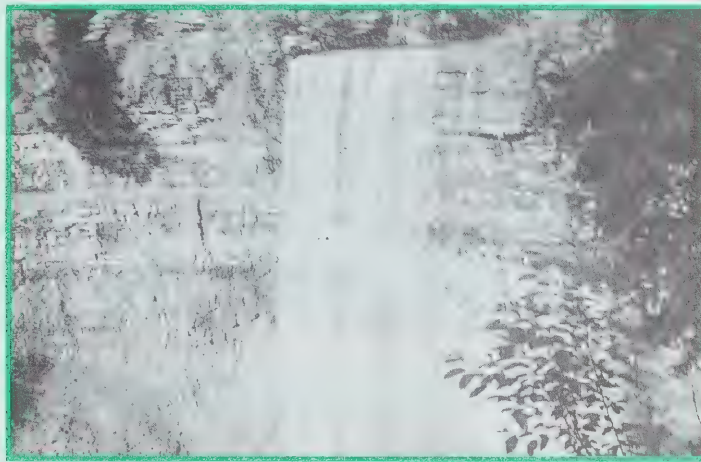
For the most part, roadway development has followed urban development patterns. For example, the QEW was constructed along the shores of Lake Ontario to link the communities in that area. Roads have provided the access needed to open up other, newer areas of Niagara-Lake Erie for development. More recently, the Greater Toronto Area has had a major influence on growth rates and direction, especially in Hamilton, Stoney Creek and Grimsby. Regions experiencing the greatest growth pressure, namely Hamilton-Wentworth and Niagara, are adopting long-term development policies aimed at encouraging a more compact form of development. The growth forecasts used in this TransFocus 2021 study reflect these policies.

NATURAL AND BUILT FEATURES

The study area includes an extensive number of important features, all of which were considered in the evaluation and development of the recommended transportation network. They include the two Indian Reserves, Aboriginal Land Claims and key natural features such as Provincial Parks and the Niagara Escarpment. Other features include agricultural land capabilities, significant

natural resources areas and landfill sites, Areas of Natural and Scientific Interests (ANSI's) and key natural features such as wetlands and wildlife habitats.

Many cultural and heritage sites, historical buildings and archaeological areas exist within the area and were investigated as part of this study. Owing to the extensive nature and detail of this research material, these sites could not be mapped on the TransFocus study's inter-regional scale. However, they indicate the study's appreciation of the scope and possible environmental impacts of transportation system improvements at the strategic level, from hiking trails to major roadway development.



Niagara Escarpment

Environmental Features as an Essential Criteria in the Evaluation Process

ECONOMIC DIVERSITY

The Niagara-Lake Erie area is a key economic region of Ontario. It includes four upper-tier municipalities, each quite different in terms of physical size, economic structure, population size and socio-economic characteristics. Because of this diversity the study area must be viewed not only as one large area, but also in terms of the conditions and prospects of each economic sector, namely agriculture, manufacturing, services and international trade.

The Agricultural Sector

Intensive agricultural activity in the study area is typified by some of Ontario's most unique and valuable farmland which represented about 15% of Ontario's agricultural revenue in 1991. In the Haldimand-Norfolk Region, much of the revenue is generated by tobacco crops and more recent alternative crops. In Niagara, agricultural activity is centred largely on the tender fruit industry. Other produce crops, greenhousing production and livestock farming round out the area's agricultural base. Despite the success of agriculture in the area, the number of farms in the Niagara-Lake Erie area declined by more than 20 percent between 1981 and 1991.

A Wealth of Agricultural Diversity

The Manufacturing Sector

Manufacturing accounts for 28 percent of the study area's labour force, and it is currently dominated by a number of mature industries such as steel, metal fabrication and automotive parts. Municipalities such as Hamilton, St. Catharines and Brantford are currently attempting to diversify to manufacturing industries that have greater growth potential, such as computer technology, communications and telecommunications, engineering and environmental products.

*Diversify the
Mature
Manufacturing
Industries*



Steel Industry

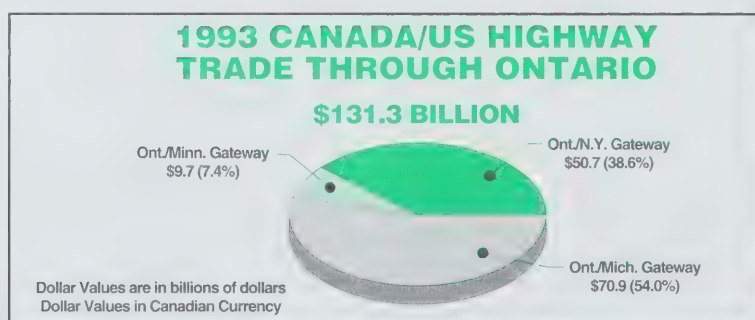
The Service Sector

The service sector accounts for nearly 60 percent of the study area's resident labour force. It includes commercial retailing, tourism activities, community services such as hospitals, libraries, schools and all levels of government operations. Tourism is important to the study area: Niagara Falls alone draws close to 12 million visitors per year, and it generates more than \$500 million in expenditures and almost 28,000 direct and indirect jobs. This sector may have the greatest potential for growth.

*The Importance
of Tourism*

International Trade

Economic activity in the Niagara-Lake Erie and Greater Toronto areas represents a significant proportion of Canadian trade with the United States. In fact, goods valued at over \$50 billion cross at the Niagara gateway annually. A high proportion of the highway trade between Canada and the United States (38.6%) passed through the Ontario/New York gateway in 1993.



1993 Canada/U.S. Trade

TRANSPORTATION INFRASTRUCTURE AND SERVICES

Ground Transportation - Roads, Transit and Rail

An extensive road network is in place throughout the area which covers approximately 1,000 kilometres of provincial highways and 2,650 kilometres of regional, county and municipal arterial roads. Connected to this network are four international bridge crossings between the study area and New York State.



*1,000 km
of Provincial
Highways*

Highways

Seven municipal transit services also operate in Brantford, Niagara Falls, St. Catharines, Thorold, Welland, Hamilton-Wentworth and Fort Erie. All offer conventional public transit service, plus specialized services for people with disabilities.

In addition, seven private inter-city bus carriers operate over 800 weekly scheduled runs in the area. These operators also provide charter and tour bus service. GO Transit, which is owned and operated by the province, runs from Hamilton to Toronto on a daily basis.

*Private Intercity
Bus Carriers*

An extensive rail network operates in the study area which covers over 950 kilometres of track owned by CN and CP. Passenger and freight rail service includes three international rail connections, two at Niagara Falls and one at Fort Erie. Passenger rail transportation is provided by VIA Rail along two main corridors (Toronto to Niagara Falls through to New York City, and Toronto to Brantford through to Windsor). GO Transit provides commuter rail service between Hamilton and Toronto.

*950 km of Rail
Track*

Airport Services

The study area has four airports of significance. The Hamilton and Niagara District Airports are currently owned by the federal government, while community airports at Brantford and Welland/Port Colborne are municipally owned facilities. Fifteen private airstrips are located within the study area. Air facilities need reliable

Four Airports

ground transportation links to make airports easily accessible and to support inter-modal passenger and goods movement.



Aviation

Inter-Regional Pedestrian and Bicycle Facilities

Nine Major Trails

Nine major inter-regional pedestrian trails are located within the study area; the Niagara River Parkway, Merritt Trail and Feeder-Canal Trail in Niagara Region; Townsend Trail and Lynn Valley Trail in Haldimand-Norfolk Region; T.H.&B. Trail and Waterfront Trail in Hamilton-Wentworth; the Grand Valley Trail in Brant County; and the Bruce Trail which extends throughout the area north to Tobermory. Numerous long distance bicycle routes are also available which have been endorsed by the Ontario Cycling Association. The Regions of Niagara and Hamilton-Wentworth have also recently completed regional bicycle route master plans.

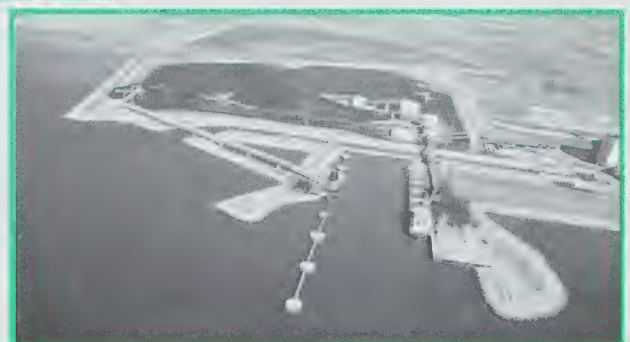
Marine Services

Water Transportation



Welland Canal

The Welland Canal runs through the Niagara Peninsula and links Lake Erie with Lake Ontario. This canal provides a vital link in the overall St. Lawrence Seaway system. In addition, seven ports in the study area offer commercial marine transportation, five of which move cargo and commodities.



Nanticoke Port

5.0 FUTURE TRENDS AND FACTORS

Although TransFocus uses a broad policy and consultative approach, it must also be based on an understanding of trends and factors affecting the transportation system. In the Niagara-Lake Erie area, many of the key transportation issues respond to emerging trends in how the study area is expected to change over the next 30 years. As a result, the projection of future transportation demands in this study depends on an assessment of two key growth indicators, namely population growth and employment growth.

*Many Issues
Respond Directly
to Emerging
Trends*

The forecasts for population and employment growth are based on several key assumptions about the future economic situation in the study area itself, and in the areas adjacent to the Niagara-Lake Erie area. The study also makes several important assumptions regarding the future development patterns in the study area.

A summary of these assumptions and future growth forecasts is presented in this section.

GROWTH SCENARIOS

The consulting firm of Clayton Research Associates was contracted to forecast population and employment growth within the study area to the year 2021. In order to cover the full range of possibilities, high and low growth scenarios were developed, each with different outlooks on the Canadian and Ontario economies.

After careful consideration and direction from both provincial and municipal officials, a Low Growth Scenario was chosen for this study as the most probable reflection of current and expected trends in the study area. By choosing the Low Growth Scenario, the resulting transportation demand should be considered as conservative. Higher rates of economic and demographic growth would accelerate the need and timing of required transportation system improvements.

*Low Growth is
the Most
Probable Trend*

It is important to note that the Niagara-Lake Erie study area is, and will continue to be, affected by growth in larger adjacent regions, namely in the Greater Toronto Area, the northeastern United States and eventually the entire Chicago-to-Montreal megalopolis. What this means is the Niagara-Lake Erie area is even more affected by growth in these larger surrounding regions than by its own growth demand. Passenger and commercial traffic moving from these areas into and through the Niagara-Lake Erie study area has an enormous effect on the area's transportation systems.

The question is not so much whether the growth forecasts will be reached, but rather what plans are in place to respond to growth when it does occur.

*Need Plans to
Respond to
Growth*

FUTURE DEVELOPMENT PATTERNS

Over the past several decades, most urban municipalities in Ontario have grown at their edges, typically in a sprawling, car-oriented pattern of low density development. This type of sprawling growth is expensive to service and is not environmentally sustainable in the long run.

Recent provincial and regional growth and settlement policies have recognized the problems associated with urban sprawl and are encouraging more compact forms of development. As such, the TransFocus study assumes a more compact form of development for the Niagara-Lake Erie area over the next thirty years. In fact, the study's assumptions regarding future growth patterns depend on the successful implementation of a number of recent planning initiatives at both the provincial and municipal levels. Examples of provincial initiatives include:

- **Planning and Development Reform (Bill 163)** - contains a number of new policy statements which support environmental sensitivity being reflected in TransFocus 2021, and it deals, for example, with agricultural land protection, the study's compact development assumption and associated new housing policies that support intensification and alternative development standards in a more compact urban form.
- **Transit-Supportive Land Use Planning Guidelines** - a product of the Ministries of Transportation and Municipal Affairs containing system and site-specific planning and urban design treatments that encourage transit usage.
- **Land Use Intensification (Bill 120)** - promotes more intensive and higher density forms of housing and mixed use developments.

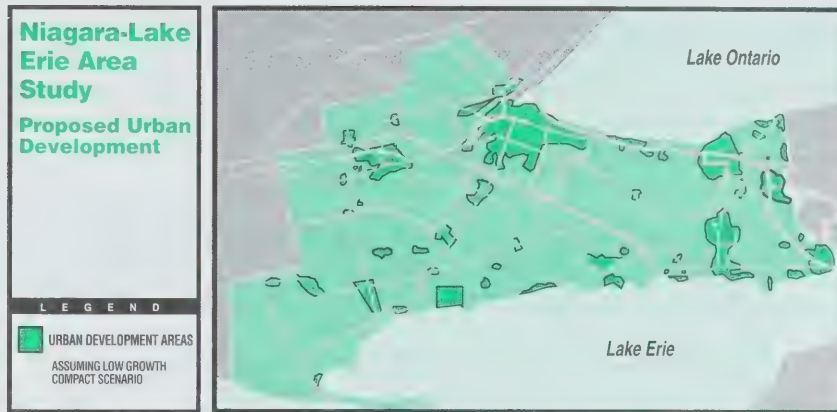
The resulting traffic forecasts used in this study are based on the assumption that substantial intensification will occur within existing residential and employment areas. By choosing the compact development approach, it is also assumed that future urban and rural development will be tightly controlled by necessary planning procedures.

TransFocus 2021 emphasizes this close relationship between land use and transportation. However, since it deals with inter-regional facilities and services in keeping with its strategic focus, the study must take a large-scale, regional perspective when dealing with future land use and development. The urban development pattern expected by the year 2021 is based on the existing settlement patterns and the assumption of more compact development in the future.

Even with the assumption of low growth and compact development, the area's transportation network must still respond to large urban concentrations and smaller, dispersed rural centres, all tied together by ground transportation linkages.

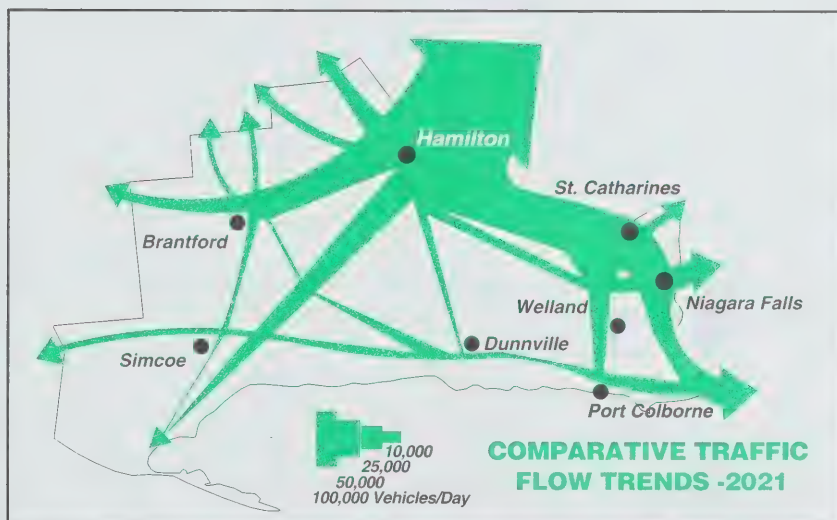
*Assume a
More Compact
Development
Form*

*Large Urban
Centres and
Dispersed Rural
Centres All Need
Transportation
Linkages*



Future Urban Development Areas 2021

Development within the study area has also occurred largely because of growth spillover from the Greater Toronto Area (GTA). Higher land costs in the GTA and overall GTA growth pressures during the 1980's encouraged growth outside, to the economic benefit of the Niagara-Lake Erie area. Although this "ripple" effect has eased since the 1990 economic slowdown, it is assumed that significant interaction between the Niagara-Lake Erie area and the GTA will continue.

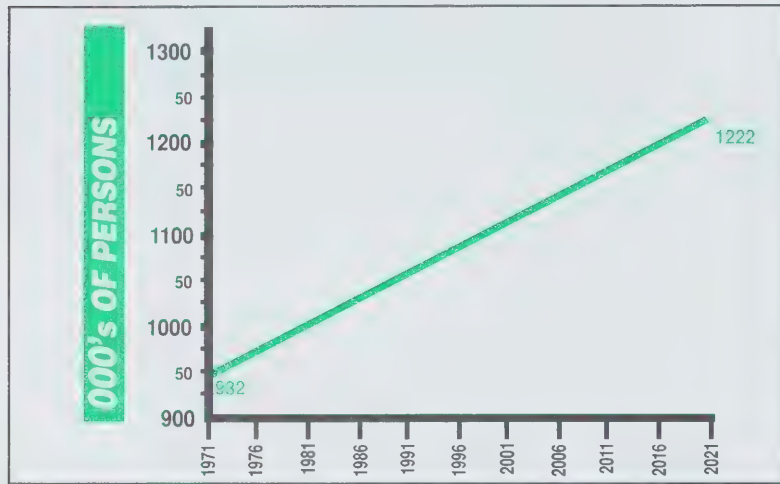


Comparative Two Direction Traffic Flow Trends 2021

FUTURE TRENDS AND FACTORS

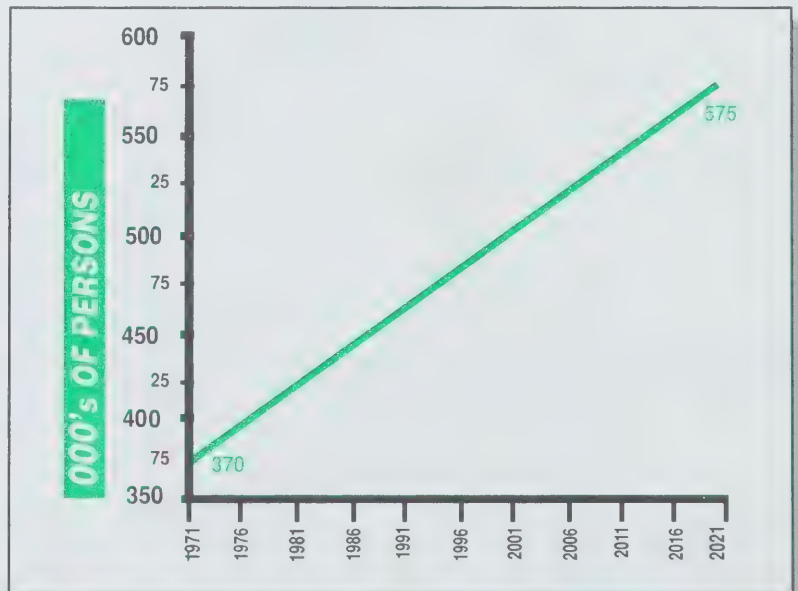
POPULATION AND EMPLOYMENT GROWTH

The study projects a 24 percent increase in population by the year 2021. As shown below, this equates to a growth in population from approximately one million people in 1991 to 1.22 million people by the year 2021.



Total Population

Similarly, the following graph shows that as part of this population growth, total employment is projected to grow by 30 percent in the study area by 2021. This increase translates to a rise in actual jobs from approximately 450,000 currently to 575,000 by the year 2021.



Total Employment

6.0 MAJOR TRANSPORTATION ISSUES

The consultation process conducted as part of TransFocus 2021 brought forward a number of transportation and related issues from the general public, advocacy groups, elected officials, municipal staff and various ministries and agencies. Not surprisingly, some of these issues overlap, but each relates to one or more of the five primary objectives of this study as summarized below:

1 ECONOMIC DEVELOPMENT



- Successful manufacturing and industrial firms, and emerging hi-tech companies, all require timely access to markets in order to remain competitive.
- Processing time and capacity for international truck and auto travelers at the border crossings need to be improved, and this should include improved road access from the bridges to the existing highway network in the Niagara Falls area.
- Freight movement regulations and restrictions need to be reviewed, with an eye to improving the competitiveness of the Ontario trucking industry.
- The Welland Canal is facing continuing decline in its traditional business of accommodating iron ore, wheat and other shipments. Alternative uses for the Canal must be identified.
- Two important issues facing the Hamilton Airport are improving ground access to the airport, and integrating air services with those of neighbouring airports (especially Pearson International Airport). Access to a major international airport, such as Hamilton Airport, is viewed by some stakeholders as essential to attracting new industry to the Niagara-Lake Erie area.
- The municipalities in the Region of Haldimand-Norfolk expressed the need for a four-lane highway into the area to improve access for tourism and to promote other economic development opportunities.
- Recreation and tourism will continue to be important to the area's economy, but the current transportation system cannot meet increasing demand, particularly in the Niagara Falls area.
- The Ministry's current signage policies for the provincial highway system are considered to be too restrictive and do not sufficiently support tourism in the Niagara-Lake Erie area.

2

ENVIRONMENTAL PROTECTION & SUSTAINABILITY



- Many people have argued that further expansion of the Queen Elizabeth Way will put development pressure on the tender-fruit lands below the escarpment. Partly because of this concern, the Regional Municipality of Niagara supports a new east-west Mid-Peninsula expressway above the escarpment. The Region believes that such a corridor would improve access to the southern area of the region and divert development pressure away from areas along the QEW.
- Other groups do not support a Mid-Peninsula expressway or highway because of its impact on important agricultural land above the escarpment.
- The need to improve public transportation services was mentioned on numerous occasions, including the desire for GO Transit service or intercity commuter service to places such as Brantford, St. Catharines, Niagara Falls, Welland and Caledonia.
- Bicycles are becoming increasingly important, and bike routes will have to be protected now in order to develop a future integrated bicycle network.
- Some people want abandoned rail rights-of-way retained and planned as bicycle and hiking trails, others want them used to develop scenic tourism roadways and still others would like abandoned rail rights-of-way to remain as natural green areas independent of the transportation system.
- Economic development needs to be balanced with the need to preserve the environment. Environmental issues must be given sufficient weight in the evaluation of potential transportation improvements. The cost of replacing wetlands or other natural features that may be destroyed should be included as part of the costs analysis of any potential project.
- A number of environmentally sensitive areas, including the Niagara Escarpment, wetlands, woodlots, wildlife habitats and other Areas of Natural or Scientific Importance, must be considered in transportation planning.
- Important cultural and heritage sites must be identified and protected.
- More roadside landscaping is needed to improve the tourism potential of the area.
- Both Lake Erie and Lake Ontario are experiencing shoreline erosion, and as a result, there is some concern that sections of the QEW are in danger of being affected by this erosion.

- Municipal transit is underused and therefore costly. Some felt that transit providers in Niagara should develop a comprehensive marketing strategy for their services.
- Public transit is not a viable option when crossing municipal boundaries, so better integration is needed.

3

SOCIAL EQUITY



- The Niagara-Lake Erie area, like the rest of the province, is facing a growing demand for specialized transportation services. As the population becomes more diverse, and more people are unable to use, or choose not to use a private automobile, more transportation options will be required.
- The need for enhanced transportation services for people with disabilities and seniors with special needs has been identified.
- A number of specialized transportation services are available across the study area, and there is a need for consistency in the delivery of these services.
- A reasonable level of transportation service, at an affordable cost, should be available to all individuals including people with disabilities, seniors with special needs, low income, and all those without access to an automobile.
- Consideration should be given to programs that put more provincial transportation dollars in the hands of the individuals who need them, thus allowing them the flexibility to make individual choices and spend transportation dollars in a way that best meets their needs.

4

USER NEEDS AND SAFETY



- Issues relating to the QEW were raised several times, specifically that the current expansion of the QEW to six lanes by the year 2000 is insufficient to meet the anticipated demands by 2021.
- A potential Waterdown bypass in Flamborough is an issue, prompted by traffic congestion problems and anticipated future growth. Local studies support a new Highway 5 alignment.
- In Hamilton, connecting the East-West Freeway with the QEW at the east end of the city needs to be addressed.
- Across the entire study area, individuals and agencies have noted their concerns about the amount of truck traffic on regional and aboriginal reserve roads. The movement of aggregate trucks across the escarpment and through

the urban areas of Hamilton-Wentworth and Niagara was raised on several occasions.

- There may be potential for cross-lake ferry services across Lake Ontario and Lake Erie.
- Many people felt that existing transportation practices favour the automobile over alternative modes of travel, such as bicycles or marine travel. A more comprehensive passenger transportation strategy is needed.
- Safety has been raised as a major issue on several highway segments throughout the study area, especially on Highway 6 between the 401 and 403, Highway 2/53 between Brantford and Ancaster, and the QEW between 405 and Thorold Stone Road.

5

RESPONSIBLE FISCAL MANAGEMENT



- The services of public transportation, transit, social agencies and school boards need to be better coordinated.
- With the construction of major new highway links in the study area (such as Highway 403 from Brantford to Ancaster), there will be a need to determine the future role of parallel highways as their function undergoes change.
- The provincial government's decision to install tolls on the new Highway 407 has raised concern in Niagara Region that new Ontario highways might also be developed with tolls.
- Every opportunity should be taken to get more use out of the existing highways through measures such as exclusive bus and car pool lanes.

THE PLANNING PROCESS

The wide variety of issues raised in this TransFocus 2021 study required a thorough and far sighted assessment of a number of potential transportation solutions. The study's five strategic objectives provided the framework for the assessment of alternatives. However, it should be noted that economic solutions may conflict with environmental values, environmental solutions may affect economic growth and social equity and user needs must be viewed within fiscal realities. The challenge of the TransFocus 2021 planning process is to develop a transportation system that can achieve a reasonable and effective balance among these important and sometimes competing objectives.

In order to achieve this balance, a combination of transportation network improvements as well as a series of policy and regulatory changes are recommended. The network improvements are a blend of road, rail and public transportation solutions that will satisfy the transportation needs of the Niagara-Lake Erie area for the next thirty years.

*A Combination of
Network
Improvements
and Policy
Changes*

The recommended network builds on the transportation commitments that are currently planned or under construction. These components, such as the expansion of the QEW to six lanes and the relocation of the Hamilton GO Transit terminal, are assumed to be part of the base transportation system.

Finally, the TransFocus recommendations remain conceptual because of the study's extensive scope and scale. At this stage, the study concentrates on what should be done, in a particular corridor, but does not pinpoint an exact location.

RECOMMENDED STRATEGIC PROJECTS AND INITIATIVES

The first part of this section highlights many of the strategic transportation improvements required for this area of the province. These recommendations are presented under the five objectives of economic development, environmental protection and sustainability, social equity, user needs and safety and responsible fiscal management.

The phasing and implementation part of this section (pages A-1 to C-2), contains all the detailed recommendations from this study, broken down into short, medium and long term time periods. These suggested implementation time periods, along with any project staging strategies, reflect when an improvement should be in place. Whether adequate funding will be available to match this schedule, cannot be determined at this time. Also included on the tables are the various organizations who are primarily responsible for implementing each of the recommendations. The first organization listed is expected to provide the lead role.

1

ECONOMIC DEVELOPMENT



The transportation system in the Niagara-Lake Erie area supports a wide variety of economic activities ranging from agriculture and heavy industry, through to tourism and the service sector. Transportation is also critically important in serving the over \$50 billion in annual international trade which uses the Niagara gateway.

TransFocus 2021 recommends a number of transportation improvements designed to support the economic development of the Niagara-Lake Erie area, today and in the future. A sampling of these recommended improvements, as described below, address international trade, regional development and tourism objectives.

International Trade

- Widen the QEW to eight lanes from Hamilton to St. Catharines and to six lanes through St. Catharines and Niagara Falls.
- Provide a four lane highway alternative to the QEW route from St. Catharines south to Port Colborne and east to Fort Erie using Highways 406, 140 and 3.
- Develop freight policies that foster international trade, including the support of transportation services that shift truck movements from the highways to rail intermodal services.
- Endorse initiatives of the Niagara Falls Bridge Commission and the Buffalo and Fort Erie Public Bridge Authority in response to growing cross border transportation demands.

Regional Development

- Continue to lobby the federal government to eliminate subsidies and practices that are detrimental to goods moving to market via the Welland Canal/St. Lawrence Seaway system.
- Extend Highway 406 south to Welland and Port Colborne to support Niagara Region's "Grow South" development policies.
- Extend Highway 420 west to connect with the Thorold tunnel to relieve development pressures in the QEW corridor through St. Catharines.
- Protect an east-west transportation corridor between Fonthill and Welland as a long term opportunity to attract development to the southern parts of Niagara Region.
- Complete the East-West Freeway in Hamilton-Wentworth in support of the Region's development objectives. The Province will also continue discussions

with Hamilton-Wentworth on the design and location of a roadway connecting the East-West Freeway and the QEW using the Red Hill Creek corridor.

- Complete the relocation of the Hamilton GO Transit terminal to the T.H.&B. station, thereby establishing this downtown location as the focal point for transit in Hamilton-Wentworth.
- Construct a new Highway 6 connecting Highway 403 in Ancaster with the Hamilton Airport to support their long term development plans.
- Improve the Highway 6 corridor between Mount Hope and Nanticoke to support the development plans of the Region of Haldimand-Norfolk and the Indian Reserves.
- Complete Highway 403 between Brantford and Ancaster to encourage economic development in Brantford and Brant County.

Tourism

- Initiate a study to determine the feasibility and timing of a summer, week-end train service between Toronto and Niagara Falls. This service would need to be fully integrated with municipal transit services, particularly in Niagara Falls, and would be part of an overall tourism marketing strategy for this area.
- The Ministries of Transportation and Culture, Tourism and Recreation, through the recently formed Highway Signing Committee, will continue to consider signage standards and policies which are more supportive of tourism.
- Develop an extensive inter-regional bicycle/pedestrian network through the area in association with tourist and recreational attractions.
- Coordinate transportation planning with the development of tourism initiatives, be they along provincial highways, at the Welland Canal, in Niagara Falls or on Indian Reserves.
- Improve the connection between the QEW and Highway 55 to allow better access to Niagara-on-the-Lake.

2

ENVIRONMENTAL PROTECTION & SUSTAINABILITY



A number of transportation improvements recommended in this study are in direct response to environmental objectives and criteria. For example, much of the emphasis on improved inter-city public transportation is intended to reduce automobile use and its associated environmental impacts. Expanded regional bicycle and walking corridors are intended to meet the same objective. These are essential considerations in a study area rich in natural, social and cultural attributes.

- Develop passenger policies and public awareness campaigns that encourage people to shift from the car to other, more environmentally sustainable transportation modes such as bus, rail, municipal transit and cycling.
- Re-introduce all day GO Rail service between Toronto and Burlington with trains every 20 minutes during the rush hour and hourly for the rest of the day. All day GO Rail service should also be extended to Hamilton, as funds become available.
- In conjunction with GO Transit and the intercity bus carriers, provide express bus services from the Niagara Region and from Brantford to connect with the GO Rail system at Burlington. With coordinated schedules and one-fare ticketing, these services would provide a more attractive alternative to the private car for area residents.
- In conjunction with the intercity bus operators, provide express bus services from the Niagara Region, Brantford and Caledonia to coordinate with municipal transit services in Hamilton-Wentworth using the new Hamilton GO Centre as the focal point.
- Develop a fully coordinated municipal transit system in Niagara Region by integrating the services provided by St. Catharines, Welland, Thorold and Niagara Falls.
- Initiate discussions with Canadian National to improve track conditions between Burlington and Hamilton, and between Hamilton and the Niagara Region to allow increased train speeds and reduced travel times.
- Continue to work with the railways and the trucking industry in developing intermodal transportation services that will encourage a shift of freight traffic from road to rail.
- Continue to lobby the federal government to maintain and improve VIA Rail services throughout the study area.
- Monitor the use of the coordinated bus/rail services described above to determine the need for future GO Rail extensions into Niagara Region and Brantford.
- Develop on and off-road bicycle and pedestrian networks throughout the study area which connect with the Waterfront Trail in Burlington and other trails in New York State and Ontario.
- Assess under-utilized and abandoned railway rights-of-way in the study area, first for their future transportation corridor potential, and secondly, for alternative uses such as utility routes, bicycle and pedestrian trails.
- Municipal planning and development initiatives are to be consistent with provincial transportation policies and guidelines resulting from planning

reform. The Transit Supportive Land Use Planning Guidelines are included in these policies.

3 SOCIAL EQUITY



Many of the issues surrounding the social equity of transportation centre on public transportation services being accessible and conveniently available to all users. This accessibility requires continuous monitoring of user needs and coordination of transportation efforts. A number of broad policy recommendations are made in this study to continue, or introduce, provincial actions that ensure transportation modes will be accessible to all users.

- The ministry will continue its policy of ensuring that municipal transit services become fully accessible over time through the provision of a family of services including low floor accessible buses and accessible taxis in urban areas.
- GO Transit will continue its retrofit program to make all trains and stations accessible to people with disabilities.
- The coordinated intercity bus/GO Rail and intercity bus/municipal transit services recommended in the previous section should use intercity motor coaches which are fully accessible.
- In coordinating municipal transit services in Niagara Region, the transit operators should use fully accessible equipment on routes that cross municipal boundaries, as is the case with the services that currently operate to Brock University.
- The ministry and local communities will work together to coordinate existing transportation services provided by school boards, transit operators, health and social agencies and volunteer groups. Coordination of these existing services will improve accessibility and use existing resources more effectively, for the benefit of both urban and rural communities. Funding is currently available for demonstration projects in the Niagara-Lake Erie area.

4 USER NEEDS AND SAFETY



Extensive public consultation conducted as part of this study has identified, or reaffirmed, a number of specific transportation system improvements that are required to meet user needs and/or public safety issues. Most involve structural improvements to the transportation system, while others are more related to public awareness and driver behavior. The highlights of some of these improvements are listed below:

- Highway 5 should be re-aligned north of Waterdown to provide a bypass of the urbanized area to reduce congestion through the village.
- Highway 403 should be widened from Ancaster to the QEW interchange in Burlington to address congestion and safety concerns.
- The completion of Highway 403 between Brantford and Ancaster will alleviate safety concerns on the parallel Highway 2/53 section.
- The widening and re-alignment of Highway 6 north of Freelon and safety improvements south of Freelon, will address safety concerns on this highway.
- The Ministry will continue its province-wide safety agenda with specific emphasis on those corridors with high accident rates.
- The QEW improvements from Hamilton to Niagara Falls will include enhanced safety features, such as concrete median barriers and better lighting systems in certain locations.

5

RESPONSIBLE FISCAL MANAGEMENT



All governments are under extreme pressure to reduce their expenditures and budget deficits. A fundamental objective of the TransFocus study was to make the most effective use of the scarce dollars available for transportation services in the Niagara-Lake Erie area. Accordingly, the emphasis throughout the study was to maximize existing transportation facilities and services by:

- Utilizing existing highways more effectively through measures such as constructing additional lanes, providing car pool lots, share-a-ride programs, technological strategies and operational enhancements.
- Encouraging greater participation on the part of private intercity bus operators to provide services that complement public services.
- Modifying policies and regulations which enhance the effectiveness of transportation services.

By placing a greater emphasis on both fiscal and environmental considerations, the recommendations in the TransFocus 2021 plan will result in a reduction in annual capital expenditures on road and highway projects over the life of the plan.

Over the next several years, the ministry will work towards implementing the recommendations of this report. The plan, however, is not written in stone. The area will continue to be monitored, and the plan will be adjusted as situations change.

Recommendations and Implementation Timing



Niagara-Lake Erie Area Study

Short Term Recommendations Now to 2000

L E G E N D

- IMPROVE INTERCITY BUS SERVICES
- INTEGRATE MUNICIPAL TRANSIT SERVICES
- WEEKEND PASSENGER TOURIST RAIL SERVICE STUDY
- ROAD UPGRADE/ WIDENING
- NEW ROAD LINKS
- UPGRADE BRIDGE PLAZA AND CUSTOM FACILITIES
- ROAD LINK STUDIES



SHORT TERM RECOMMENDATIONS – NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
1) Provide all day (every 20 minutes during peak; every hour during off peak), fully accessible GO Rail Service from Union Station to downtown Burlington	<ul style="list-style-type: none"> • Environment • User Needs • Social Equity 	<ul style="list-style-type: none"> • GO Transit
2) Complete relocation of the GO Rail Terminal to the TH & B Station in downtown Hamilton	<ul style="list-style-type: none"> • Environment • Social Equity • User Needs 	<ul style="list-style-type: none"> • GO Transit
3) Initiate discussions with CN Rail to improve track conditions between Burlington and Hamilton and from Hamilton to Niagara Region to allow increased train speeds and reduced travel times	<ul style="list-style-type: none"> • User Needs • Fiscal Management • Tourism 	<ul style="list-style-type: none"> • MTO • CN Rail • Federal Government
4) Continue to lobby the federal government to maintain and improve VIA Rail services throughout the study area	<ul style="list-style-type: none"> • Environment • Social Equity • User Needs 	<ul style="list-style-type: none"> • MTO • Regional Municipalities • Federal Government
5) Initiate a study to determine the feasibility and timing of a summer, weekend train service between Toronto and Niagara Falls (Fully integrated, with overall tourism marketing strategy)	<ul style="list-style-type: none"> • Environment • Tourism • Economic Development 	<ul style="list-style-type: none"> • MTO/MCTR • GO Transit • Federal Government • CN Rail
6) Provide fully accessible bus meet train service from Niagara Region to the Burlington Fairview GO Station and from Brantford to the Hamilton or Aldershot GO Stations with co-ordinated schedules and through ticketing	<ul style="list-style-type: none"> • Environment • User Needs • Social Equity 	<ul style="list-style-type: none"> • Intercity motor coach carriers • GO Transit • MTO

SHORT TERM RECOMMENDATIONS – NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
7) Provide frequent, fully accessible bus services from Niagara Region and Brantford to Hamilton-Wentworth using the new TH & B Terminal as the focal point (co-ordinate with regional and local transit services)	<ul style="list-style-type: none"> • Environment • User Needs • Social Equity 	<ul style="list-style-type: none"> • Intercity motor coach carriers • Regional and Municipal transit operators • MTO
8) Provide an improved, fully accessible, integrated municipal transit service within Niagara Region by co-ordinating the services of the existing municipal transit operators	<ul style="list-style-type: none"> • Environment • Social Equity 	<ul style="list-style-type: none"> • Niagara Region municipal transit operators • MTO
9) Co-ordinate existing transportation services to make the maximum use of available transportation resources for people with disabilities and seniors with special needs, by planning resources more effectively	<ul style="list-style-type: none"> • Social Equity • User Needs 	<ul style="list-style-type: none"> • MTO • Other provincial ministries • Public and private transportation providers
10) The Transit Supportive Land Use Planning Guidelines, as included in the reform of the planning process (Bill 163), should be reflected in municipal planning and development initiatives	<ul style="list-style-type: none"> • Environment • Economic Development 	<ul style="list-style-type: none"> • MTO/MMA • Regional and local governments • MTO

SHORT TERM RECOMMENDATIONS – NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
11) Develop passenger policies and public awareness campaigns that encourage people to shift from the private car to other, more sustainable transportation modes such as bus, rail, municipal transit and cycling	<ul style="list-style-type: none"> • Environment • Social Equity • Fiscal Management 	<ul style="list-style-type: none"> • Public and private transportation providers • Regional and local governments
12) Widen QEW to six lanes from Highway 20 (Hamilton) to Highway 406 (St. Catharines)	<ul style="list-style-type: none"> • Economic Development • Tourism • User Needs 	<ul style="list-style-type: none"> • MTO
13) Widen Highway 5 to four lanes from Waterdown to Highway 6	<ul style="list-style-type: none"> • User Needs 	<ul style="list-style-type: none"> • MTO
14) Widen Highway 6 to four lanes from Freelon to Maddaugh Road (Wellington County Boundary)	<ul style="list-style-type: none"> • Safety • User Needs 	<ul style="list-style-type: none"> • MTO
15) Continue the increased levels of enforcement and the “safe on six” awareness campaign to improve safety on Highway 6 between Highways 401 and 403	<ul style="list-style-type: none"> • Safety 	<ul style="list-style-type: none"> • OPP • MTO • Local community groups
16) Upgrade Highway 6 from Highway 5 to Freelon to improve cross section	<ul style="list-style-type: none"> • Safety 	<ul style="list-style-type: none"> • MTO
17) Complete construction of new Highway 403 to four lanes from Ancaster to Brantford	<ul style="list-style-type: none"> • Economic Development • Safety • Tourism • User Needs 	<ul style="list-style-type: none"> • MTO

SHORT TERM RECOMMENDATIONS – NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
18) Complete construction of new Highway 406 to two lanes from Port Robinson Road (Thorold) to Townline Road (Welland)	<ul style="list-style-type: none"> Economic Development Regional Development 	<ul style="list-style-type: none"> MTO
19) Commence staged construction of new Highway 6 from Highway 403 to the Hamilton Airport and ultimately connect to the Caledonia Bypass.	<ul style="list-style-type: none"> Economic Development User Needs 	<ul style="list-style-type: none"> MTO
20) Complete construction of Hamilton East-West Freeway to four lanes from Ancaster to Mt. Albion Road and widen Mud Street from two to four lanes from the East-West Freeway to Highway 20	<ul style="list-style-type: none"> User Needs Economic Development Regional Development 	<ul style="list-style-type: none"> Regional Municipality of Hamilton-Wentworth MTO
21) Continue discussions with Hamilton-Wentworth on the design, location and construction timing of a roadway connecting the East-West Freeway and the QEW using the Red Hill Creek Corridor	<ul style="list-style-type: none"> Regional Development User Needs Economic Development 	<ul style="list-style-type: none"> Regional Municipality of Hamilton-Wentworth MTO
22) Widen Brantford Southern Access Road to four lanes from Henry Street to Colborne Street	<ul style="list-style-type: none"> User Needs Economic Development Regional Development 	<ul style="list-style-type: none"> City of Brantford MTO
23) Introduce changes to highway signing standards and policies on provincial facilities to encourage tourism, especially in the Niagara Falls area	<ul style="list-style-type: none"> Tourism Economic Development 	<ul style="list-style-type: none"> MTO/MCTR

SHORT TERM RECOMMENDATIONS – NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
24) Develop freight policies that foster inter-national trade, including the support of transportation services to shift truck movements from highways to rail inter-modal services	<ul style="list-style-type: none"> • Economic Development • Environment 	<ul style="list-style-type: none"> • MTO • Federal government • Freight carriers
25) Continue to lobby the federal government to eliminate subsidies and practices that are detrimental to goods moving to markets via the Welland Canal/St. Lawrence Seaway system	<ul style="list-style-type: none"> • Economic Development • Fiscal Management 	<ul style="list-style-type: none"> • MTO • St. Lawrence Seaway Authority
26) Undertake road rationalization studies and determine implementation strategies for Niagara Region and Hamilton-Wentworth Region	<ul style="list-style-type: none"> • Fiscal Management • Economic Development 	<ul style="list-style-type: none"> • MTO • Regional municipalities
27) Upgrade the traffic plaza, construct a new Canada Customs Commercial Office Facility and a commercial inspection centre at the Peace Bridge	<ul style="list-style-type: none"> • Economic Development • Tourism • User Needs 	<ul style="list-style-type: none"> • Buffalo and Fort Erie Public Bridge Authority
28) Upgrade traffic plaza and construct new custom facilities at Rainbow Bridge	<ul style="list-style-type: none"> • Economic Development • Tourism • User Needs 	<ul style="list-style-type: none"> • Niagara Falls Bridge Commission

SHORT TERM RECOMMENDATIONS – NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
29) Initiate an Environmental Assessment Proposal to determine the feasibility and timing of a new transportation link from the Whirlpool Bridge to connect with the Provincial Highway system. Given other network improvements recommended in this study, a connection to Highway 420 would be preferred	<ul style="list-style-type: none"> • Economic Development • User Needs • Tourism 	<ul style="list-style-type: none"> • MTO • Regional Municipality of Niagara • Niagara Falls Bridge Commission
30) Existing designations for the Port Colborne Tunnel, Smithville Bypass, Dunnville diversion and Highway 20 (QEW to Fonthill) should be maintained	<ul style="list-style-type: none"> • Fiscal Management • Regional Development 	<ul style="list-style-type: none"> • MTO • Regional and local governments
31) In keeping with Amendment 58 to the Official Plan for the Niagara Planning Area, a Mid-Peninsula Transportation Corridor should be identified and protected for future development purposes	<ul style="list-style-type: none"> • Regional Development • Tourism • User Needs 	<ul style="list-style-type: none"> • Regional and local governments • MMA • MTO
32) A new Highway 6 transportation corridor, extending from south of Caledonia to Nanticoke, should be identified and protected for future development purposes in the Official Plan of the regional municipality	<ul style="list-style-type: none"> • Regional Development • Economic Development • User Needs 	<ul style="list-style-type: none"> • Regional and local governments • MMA • MTO

SHORT TERM RECOMMENDATIONS — NOW TO 2000

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
33) Develop on and off-road bicycle/ pedestrian networks within the fourteen recommended TransFocus 2021 corridors (see Map)	<ul style="list-style-type: none"> • Environment • Tourism 	<ul style="list-style-type: none"> • Regional and local governments • Conservation authorities • Special interest groups • MTO
34) Assess underutilized and abandoned rail rights-of-way in the study area first for their future transportation corridor potential and secondly, for alternative uses such as utility routes, bicycle and pedestrian trails	<ul style="list-style-type: none"> • Environment • Tourism 	<ul style="list-style-type: none"> • MTO • Regional and local governments • Special interest groups
35) Promote the establishment and use of car pool lots, share-a-ride programs, technological strategies, operational improvements and roadside aesthetics on the major highway corridors in the study area	<ul style="list-style-type: none"> • Environment • User Needs • Fiscal Management • Tourism • Safety 	<ul style="list-style-type: none"> • MTO • Regional and local governments • Private sector

Niagara-Lake Erie Area Study

Medium Term Recommendations 2001 To 2011

L E G E N D

- IMPROVE INTERCITY BUS SERVICES
- MONITOR NEED FOR GO RAIL EXTENSIONS
- IMPROVE GO TRAIN SERVICE TO DOWNTOWN HAMILTON
- ROAD UPGRADE/ WIDENING
- NEW ROAD LINKS
- ADDED BRIDGE CAPACITY AT PEACE AND WHIRLPOOL CROSSINGS



MEDIUM TERM RECOMMENDATIONS – 2001 TO 2011

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
1) Provide all day (every 20 minutes during peak; every hour during off peak), fully accessible GO Rail service from Union Station to the Hamilton GO Station	<ul style="list-style-type: none"> • Environment • User Needs • Social Equity 	<ul style="list-style-type: none"> • GO Transit
2) Provide fully accessible bus service from Hamilton-Wentworth to Caledonia/Hagersville using the Hamilton GO Station as the focal point	<ul style="list-style-type: none"> • Environment • User Needs • Social Equity 	<ul style="list-style-type: none"> • Intercity motor coach carriers • Regional transit operators • MTO
3) Monitor the co-ordinated bus/transit services outlined in the short term recommendations to determine the need for GO Rail extension into Niagara Region and Brantford in the medium to longer term	<ul style="list-style-type: none"> • Environment • User Needs • Social Equity 	<ul style="list-style-type: none"> • MTO • GO Transit
4) Ensure that all public transit and GO Transit services become fully accessible	<ul style="list-style-type: none"> • Social Equity 	<ul style="list-style-type: none"> • Public transit operators • GO Transit • MTO
5) Continue to maximize the use of transportation resources for people with disabilities and seniors with special needs, by planning and co-ordinating resources more effectively	<ul style="list-style-type: none"> • Social Equity • User Needs 	<ul style="list-style-type: none"> • MTO • Other provincial ministries • Regional and local transportation providers
6) Widen QEW to eight lanes from Highway 403 (Burlington) to Niagara Regional Road 10 (Casablanca Blvd. IC 74)	<ul style="list-style-type: none"> • Economic Development • Tourism • User Needs 	<ul style="list-style-type: none"> • MTO

MEDIUM TERM RECOMMENDATIONS – 2001 TO 2011

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
7) Widen QEW to six lanes from Highway 406 to the Garden City Skyway	<ul style="list-style-type: none"> Economic Development Tourism User Needs 	<ul style="list-style-type: none"> MTO
8) Widen Highway 406 to four lanes from Beaverdams Road to East Main Street (Welland)	<ul style="list-style-type: none"> User Needs Regional Development Economic Development 	<ul style="list-style-type: none"> MTO
9) Widen Highway 406 to six lanes from Highway 58 to Westchester Avenue (St. Catharines)	<ul style="list-style-type: none"> User Needs Economic Development 	<ul style="list-style-type: none"> MTO
10) Construct a new four-lane Highway 420 extension from QEW to Highway 58 (Thorold Tunnel)	<ul style="list-style-type: none"> User Needs Economic Development Tourism 	<ul style="list-style-type: none"> MTO
11) Construct a new two-lane Highway 55 from the QEW to the Niagara District Airport (Irvine Road)	<ul style="list-style-type: none"> Tourism Regional Development Economic Development 	<ul style="list-style-type: none"> MTO
12) Provide additional lanes in the Highway 20 corridor from Highway 406 to Fonthill	<ul style="list-style-type: none"> User Needs Regional Development 	<ul style="list-style-type: none"> MTO
13) Widen Highway 403 to eight lanes from QEW (Burlington) to Main Street (Hamilton)	<ul style="list-style-type: none"> User Needs Economic Development Tourism 	<ul style="list-style-type: none"> MTO
14) Widen Highway 403 to six/seven lanes from Main Street to Highway 2 (Ancaster)	<ul style="list-style-type: none"> User Needs Economic Development Tourism 	<ul style="list-style-type: none"> MTO

MEDIUM TERM RECOMMENDATIONS – 2001 TO 2011

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
15) Widen Highway 6 to six lanes from Highway 403 to new Highway 5 (Waterdown)	<ul style="list-style-type: none"> • User Needs • Economic Development • Regional Development 	<ul style="list-style-type: none"> • MTO
16) Construct a new four-lane bypass from east of Waterdown to Sydenham Road	<ul style="list-style-type: none"> • User Needs • Regional Development 	<ul style="list-style-type: none"> • MTO/Regional and local governments
17) Construct a new four-lane Highway 6 from north of Freelon to Highway 401	<ul style="list-style-type: none"> • User Needs • Economic Development 	<ul style="list-style-type: none"> • MTO
18) Upgrade Rest Acres Road (Brantford) and assume section into the provincial system as new Highway 24	<ul style="list-style-type: none"> • Economic Development • Tourism • Regional Development 	<ul style="list-style-type: none"> • MTO
19) Construct the Brantford Southern Access Road from Highway 403 to Lynden Road	<ul style="list-style-type: none"> • User Needs • Economic Development • Regional Development 	<ul style="list-style-type: none"> • City of Brantford • MTO
20) Increase the capacity of the Peace Bridge from three to six lanes (Fort Erie)	<ul style="list-style-type: none"> • Tourism • Economic Development 	<ul style="list-style-type: none"> • Buffalo and Fort Erie Public Bridge Authority
21) Pave the upper deck of the Whirlpool Bridge (Niagara Falls) contingent on a direct connection to the Provincial Highway system	<ul style="list-style-type: none"> • Tourism • Economic Development 	<ul style="list-style-type: none"> • Niagara Falls Bridge Commission

MEDIUM TERM RECOMMENDATIONS – 2001 TO 2011

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
22) Continue development of on and off-road bicycle/pedestrian networks within the fourteen recommended TransFocus 2021 corridors (see Map)	<ul style="list-style-type: none"> • Environment • Tourism 	<ul style="list-style-type: none"> • Regional and local governments • Conservation authorities • Special interest groups • MTO
23) Continue to assess underutilized and abandoned rail rights-of-way in the study area first for their future transportation corridor potential and secondly, for alternative uses such as utility routes, bicycle and pedestrian trails	<ul style="list-style-type: none"> • Environment • Tourism 	<ul style="list-style-type: none"> • MTO • Regional and local governments • Special interest groups
24) Continue to promote the establishment and use of car pool lots, share-a-ride programs, technological strategies, operational improvements and roadside aesthetics on the major highway corridors in the study area	<ul style="list-style-type: none"> • Environment • User Needs • Fiscal Management • Tourism • Safety 	<ul style="list-style-type: none"> • MTO • Regional and local governments • Private sector

Niagara-Lake Erie Area Study

Long Term
Recommendations
2012 To 2021

L E G E N D

- PUBLIC TRANSPORTATION SERVICE UPGRADE
- ROAD UPGRADE/ WIDENING
- NEW ROAD LINKS



LONG TERM RECOMMENDATIONS – 2012 TO 2021

RECOMMENDATIONS		OBJECTIVES SUPPORTED	FUTURE ACTION BY
1)	Continue to expand and upgrade all public transportation services and facilities in the study area	<ul style="list-style-type: none"> User Needs Social Equity Environment 	<ul style="list-style-type: none"> Intercity motor coach carriers Regional and municipal transit operators GO Transit MTO
2)	Continue to maximize the use of transportation resources for people with disabilities and seniors with special needs, by planning and co-ordinating resources more effectively	<ul style="list-style-type: none"> Social Equity User Needs 	<ul style="list-style-type: none"> MTO Other provincial ministries Public and private transportation providers
3)	Widen QEW to eight lanes from Niagara Regional Road 10 (Casablanca Blvd. IC 74) to Highway 406	<ul style="list-style-type: none"> Economic Development Tourism User Needs 	<ul style="list-style-type: none"> MTO
4)	Widen QEW to six lanes from Highway 405 to McLeod Road (Niagara Falls)	<ul style="list-style-type: none"> Economic Development Tourism User Needs 	<ul style="list-style-type: none"> MTO
5)	Widen Highway 140 to four lanes from East Main Street (Welland) to Highway 3	<ul style="list-style-type: none"> Regional Development Economic Development User Needs 	<ul style="list-style-type: none"> MTO
6)	Widen Highway 3 to four lanes from Highway 140 (Port Colborne) to Gasline	<ul style="list-style-type: none"> Regional Development Economic Development User Needs 	<ul style="list-style-type: none"> MTO
7)	Construct a new two-lane Highway 3 from Ostryham Corners to Highway 56	<ul style="list-style-type: none"> Regional Development Tourism 	<ul style="list-style-type: none"> MTO
8)	Widen Highway 6 to four lanes from Caledonia to Hagersville	<ul style="list-style-type: none"> User Needs Economic Development Regional Development 	<ul style="list-style-type: none"> MTO

LONG TERM RECOMMENDATIONS – 2012 TO 2021

RECOMMENDATIONS	OBJECTIVES SUPPORTED	FUTURE ACTION BY
9) Widen Highway 5 to four lanes from Sydenham Road (Regional Road 505) to Highway 8	<ul style="list-style-type: none"> • User Needs • Regional Development 	<ul style="list-style-type: none"> • MTO
10) Widen Highway 403 to six lanes from the junction of new Highway 403 to Highway 2 (Brantford)	<ul style="list-style-type: none"> • User Needs • Regional Development 	<ul style="list-style-type: none"> • MTO
11) Widen Highway 24 to four lanes from the north junction of Highway 5 to Cambridge	<ul style="list-style-type: none"> • User Needs • Economic Development 	<ul style="list-style-type: none"> • MTO
12) Continue development of on and off-road bicycle/pedestrian networks within the fourteen recommended TransFocus 2021 corridors (see Map)	<ul style="list-style-type: none"> • Environment • Tourism 	<ul style="list-style-type: none"> • Regional and local governments • Conservation Authorities • Special interest groups • MTO
13) Continue to assess underutilized and abandoned rail rights-of-way in the study area first for their future transportation corridor potential and secondly, for alternative uses such as utility routes, bicycle and pedestrian trails	<ul style="list-style-type: none"> • Environment • Tourism 	<ul style="list-style-type: none"> • MTO • Regional and local governments • Special interest groups
14) Continue to promote the establishment and use of car pool lots, share-a-ride programs, technological strategies, operational improvements and roadside aesthetics on the major highway corridors in the study area	<ul style="list-style-type: none"> • Environment • User Needs • Fiscal Management • Tourism • Safety 	<ul style="list-style-type: none"> • MTO • Regional and local governments • Private sector

Niagara-Lake Erie Area Study

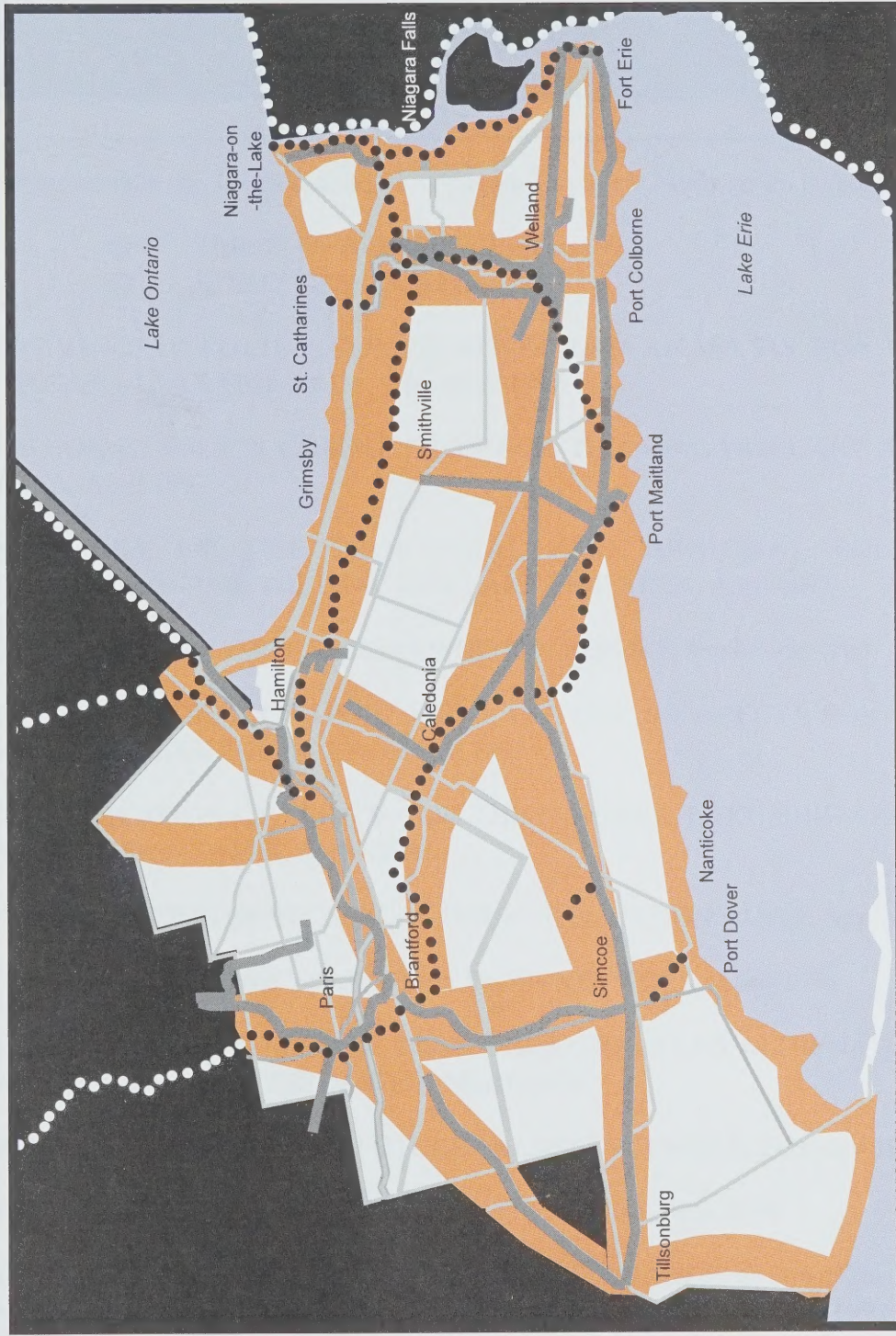
Recommended Interregional Bicycle/Pedestrian Trail Corridors

LEGEND

INTERREGIONAL TRAIL
CORRIDORS

EXISTING TRAILS
(Hiking, Biking, Hiking/Biking)

ABANDONED, PURCHASED OR
VULNERABLE RAIL LINES





Other documents in the TransFocus 2021 - Niagara-Lake Erie Study series include:

- TERMS OF REFERENCE, June 1992
- STUDY DESIGN, August 1992
- 1) PROVINCIAL POLICY COMPILATION AND ANALYSIS FOR THE NIAGARA-LAKE ERIE AREA, December 1992
- 2) REGIONAL POLICY COMPILATION FOR THE NIAGARA-LAKE ERIE AREA, April 1993
- 3) SUMMARY OF THE PROVINCIAL AND REGIONAL POLICY COMPILATION FOR THE NIAGARA-LAKE ERIE AREA, April 1993
- 4) EXISTING INFRASTRUCTURE CONDITION REPORT, September 1993
- 5) ECONOMIC, DEMOGRAPHIC AND LAND USE PROSPECTS FOR THE NIAGARA-LAKE ERIE AREA, August 1993
- 6) IDENTIFICATION OF ISSUES FOR THE NIAGARA-LAKE ERIE AREA - A DISCUSSION PAPER, April 1993
- 7) IDENTIFICATION OF TECHNICAL ISSUES DISCUSSION PAPER, April 1993
- 8) INTER-REGIONAL BICYCLE/PEDESTRIAN NETWORK, April 1994
- 9) EVALUATION OF STRATEGIC TRANSPORTATION PLAN ALTERNATIVES AND CAPITAL COST ESTIMATES, March 1994
- 10) REVIEW OF PRESENT AND FUTURE TRANSIT NETWORK, February 1994
- 11) FORECAST DEMAND AND MODELLING PROCESS, July 1994
- 12) TRANSFOCUS 2021 - A STRATEGIC TRANSPORTATION PLAN FOR THE NIAGARA-LAKE ERIE AREA - DRAFT SUMMARY REPORT, April 1994
- 13) TRANSFOCUS 2021 - A STRATEGIC TRANSPORTATION PLAN FOR THE NIAGARA-LAKE ERIE AREA - TECHNICAL REPORT, April 1994
- 14) TRANSFOCUS 2021 - A STRATEGIC TRANSPORTATION PLAN FOR THE NIAGARA-LAKE ERIE AREA - COMMENTS/CONCERNS IN RESPONSE TO THE DRAFT SUMMARY REPORT, November 1994

